Complete Summary

GUIDELINE TITLE

Bariatric surgery and pregnancy.

BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Bariatric surgery and pregnancy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2009 Jun. 9 p. (ACOG practice bulletin; no. 105). [95 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Bariatric surgery and pregnancy

GUIDELINE CATEGORY

Counseling
Evaluation
Management
Risk Assessment
Treatment

CLINICAL SPECIALTY

Colon and Rectal Surgery
Endocrinology
Family Practice
Gastroenterology
Internal Medicine
Nutrition
Obstetrics and Gynecology
Pediatrics
Surgery

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

- To aid practitioners in making decisions about appropriate obstetric and gynecologic care
- To provide recommendations for the care of the patient during preconception, pregnancy, and delivery after bariatric surgery

TARGET POPULATION

Women of child-bearing age who have undergone bariatric surgery

INTERVENTIONS AND PRACTICES CONSIDERED

Management/Treatment

1. Approach to contraception and preconception after bariatric surgery
    - Counseling
    - Use of non-oral administration of hormonal contraception
    - Waiting 12 to 24 months after bariatric surgery before conceiving
2. Strategy to address nutritional status during pregnancy following bariatric surgery
    - Early consultation with bariatric surgeon
    - Evaluation for micronutrient deficiencies and refer to nutritionist
    - Monitoring blood count, iron, ferritin, calcium, and vitamin D levels
    - Supplementation with oral vitamins and possibly parenteral forms
    - Post-partum surveillance
3. Considerations during the antenatal period for women who have had bariatric surgery
    - Evaluation of any abdominal pain and involve bariatric surgeon
    - Testing for therapeutic drug levels
    - Use of alternative testing for gestational diabetes
    - Use of ultrasound to monitor fetal growth
4. Considerations during labor and deliver following bariatric surgery
    - Not an indication for cesarean delivery
    - Prelabor consultation with bariatric surgeon

MAJOR OUTCOMES CONSIDERED

- Maternal morbidity and mortality
- Fetal morbidity and mortality
- Incidence of complications during pregnancy (gestational diabetes, preeclampsia)
- Cesarean delivery rates
- Fertility rate

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologist's own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1975 and November 2008. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force:

I Evidence obtained from at least one properly designed randomized controlled trial.

II-1 Evidence obtained from well-designed controlled trials without randomization.

II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group.

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician-gynecologists were used. See also the "Rating Scheme for the Strength of Recommendations" field regarding Grade C recommendations.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists, generalists and subspecialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The grades of evidence (I-III) and levels of recommendations (A-C) are defined at the end of "Major Recommendations" field.

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

- Contraceptive counseling is important for adolescents because pregnancy rates after bariatric surgery are double the rate in the general adolescent population.
- Because there is an increased risk of oral contraception failure after bariatric surgery with a significant malabsorption component, non-oral administration of hormonal contraception should be considered in these patients.
- In using medications in which a therapeutic drug level is critical, testing drug levels may be necessary to ensure a therapeutic effect.

The following recommendations and conclusions are based primarily on consensus and expert opinion (Level C):

- There should be a high index of suspicion for gastrointestinal surgical complications when pregnant women who have had these procedures present with significant abdominal symptoms.
- Bariatric surgery should not be considered a treatment for infertility.
- Bariatric surgery should not be considered an indication for cesarean delivery.
- There is no consensus on the management of patients during pregnancy who have had an adjustable gastric banding procedure, but early consultation with a bariatric surgeon is recommended.
- Alternative testing for gestational diabetes should be considered for those patients with a malabsorptive type surgery.
- Consultation with a nutritionist after conception may help the patient adhere to dietary regimens and cope with the physiologic changes of pregnancy.
- A broad evaluation for micronutrient deficiencies at the beginning of pregnancy for women who have had bariatric surgery should be considered.

Definitions:

Grades of Evidence

I Evidence obtained from at least one properly designed randomized controlled trial.

II-1 Evidence obtained from well-designed controlled trials without randomization.

II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group.

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Levels of Recommendation

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate counseling and management of patients who become pregnant after bariatric surgery

POTENTIAL HARMS

Future Fertility

Several studies suggest there may be a decreased absorption of oral contraceptives (OCPs) as a result of the anatomic and physiologic alterations from malabsorptive surgery.

Maternal Effects

- Some studies reported an increase in preterm premature rupture of membranes and a higher rate of cesarean deliveries.
- Late complications during pregnancy (maternal intestinal obstruction, gastrointestinal hemorrhage) and maternal death were reported in some studies.

Fetal Effects

Some reports suggest a trend toward lower birth weight infants following bariatric surgery.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2009 Jun

GUIDELINE DEVELOPER(S)

American College of Obstetricians and Gynecologists - Medical Specialty Society

SOURCE(S) OF FUNDING

American College of Obstetricians and Gynecologists (ACOG)

GUIDELINE COMMITTEE

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins - Obstetrics

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

American College of Obstetricians and Gynecologists (ACOG) committees are created or abolished and their overall function defined by the Executive Board. Appointments are made for one year, with the understanding that such appointment may be continued for a total of three years. The majority of committee members are Fellows, but Junior Fellows also are eligible for appointment. Some committees may have representatives from other organizations when this is particularly appropriate to committee activities. The president elect appoints committee members annually.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: None available

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 4500, Kearneysville, WV 25430-4500; telephone, 800-762-2264, ext. 192; e-mail: sales@acog.org. The ACOG Bookstore is available online at the ACOG Web site.

AVAILABILITY OF COMPANION DOCUMENTS

Proposed performance measures are included in the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on August 31, 2009. The information was reviewed by the guideline developer on September 18, 2009.

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